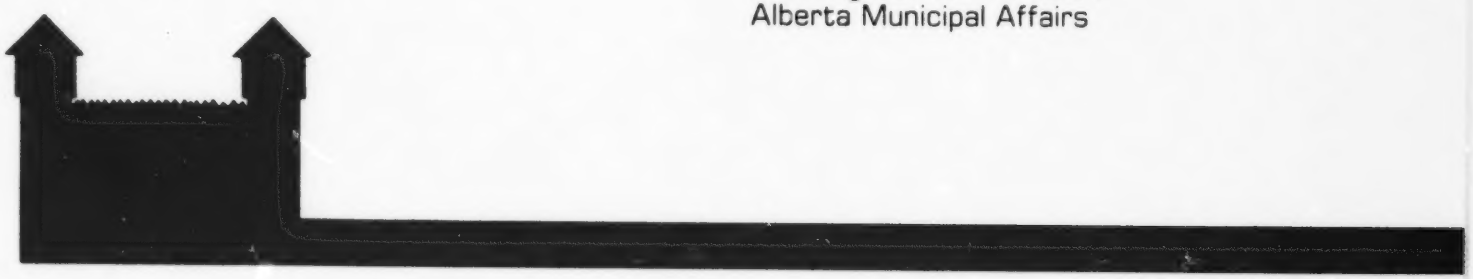
HAMLET OF FORT CHIPEWYAN
RESIDENTIAL LAND USE STUDY

An initial step towards making additional residential lots available in Fort Chipewyan.

For: Improvement District Operations
Division
Alberta Municipal Affairs

By: Planning Branch
Planning Services Division
Alberta Municipal Affairs



September 1986

Alberta Municipal Affairs
Improvement District Operations Division
9925 - 107 Street
EDMONTON, Alberta
T5K 2H9

Attention: Mr. Pieter deVos
Director, East Central Region

Dear Sir:

RE: RESIDENTIAL LAND STUDY
FORT CHIPEWYAN, ALBERTA

We are pleased to submit the attached Residential Land Study for the Hamlet of Fort Chipewyan.

The study consists of three components. The first is an inventory of existing land use and development constraints. The second component identifies opportunities for future residential development. The study concludes with recommendations for future action, including areas where further study is necessary to achieve the desired goal of providing additional serviced residential lots, once the existing inventory of lots has been depleted.

Trusting you will find this study of assistance.

Yours very truly,

K. Vogl

Keith Vogl
Planner
Planning Branch
Alberta Municipal Affairs

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INTRODUCTION

BACKGROUND

Through the 1980's there have been ongoing discussions regarding the need for additional residential lots in the Hamlet of Fort Chipewyan. In 1981, Alberta Housing Corporation initiated a 100 lot residential subdivision to meet this need. However, the subdivision did not proceed past the stage of conditional subdivision approval, as there did not appear to be sufficient market for the lots at the anticipated price. Consequently, in 1982 Alberta Housing Corporation proceeded with a replot of their existing subdivision, which created an additional 29 residential lots in the Hamlet.

In 1983, the Improvement District Advisory Council commissioned a special feasibility study to undertake an inventory of existing land uses and assesses the needs and capabilities of the Hamlet to accommodate future development. One of the conclusions of the study was that there is a desire by local residents for larger, unserviced residential lots.

At the present time Alberta Mortgage and Housing Corporation (formerly Alberta Housing Corporation) has a number of their serviced residential lots available. They are vailable at a subsidized price to qualifying residents of Fort Chipewyan.

In order to prepare for future demands for additional residential lots, Improvement District Operations Division requested the Planning Branch to look at the availability of developable land in and around the Hamlet of Fort Chipewyan for future residential purposes.

TERMS OF REFERENCE

The objective of this study is to identify land most suitable for development within and adjacent to the Hamlet of Fort Chipewyan, as an initial step towards making lots available once the existing inventory has been depleted.

The study investigates the issue from two perspectives. The first looks at areas in the Hamlet which are adjacent to the developed portion of the community and may be economically developed for residential purposes. The second perspective reviews the concept of creating additional lots within the Hamlet of Fort Chipewyan through replotting or resubdividing existing parcels.

This study focuses on the identification of land for future residential lots serviced with municipal sewer and water. As such, subdivision and development must be relatively compact in order to be economical and efficient. Unserviced residential development in the vicinity of Fort Chipewyan is not considered in this study.

STUDY PROCESS

This study was prepared in three stages. The first involved collection and mapping of information on the community in order to provide an inventory of existing land use and development constraints. This included a review of existing literature and reports, a site inventory, aerial photograph analysis, and discussions with Improvement District staff. The second stage was a review and analysis of the information, the identification of potentially developable areas, and areas where additional information may be required. The third stage involved report preparation and presentation.

The study has been prepared by the Planning Branch of Alberta Municipal Affairs for Improvement District Operations Division. The Improvement District Advisory Council was designated a consultative role, and were consulted at key stages during the study.

STUDY AREA

The study area selected includes all lands within the boundaries of the Hamlet of Fort Chipewyan (Ministerial Order 844/79) excepting river lots 1 to 6. This area was excluded because of the distance to the serviced portion of the Hamlet and the desire to keep the community relatively compact and therefore economically serviceable. (See Location Map).

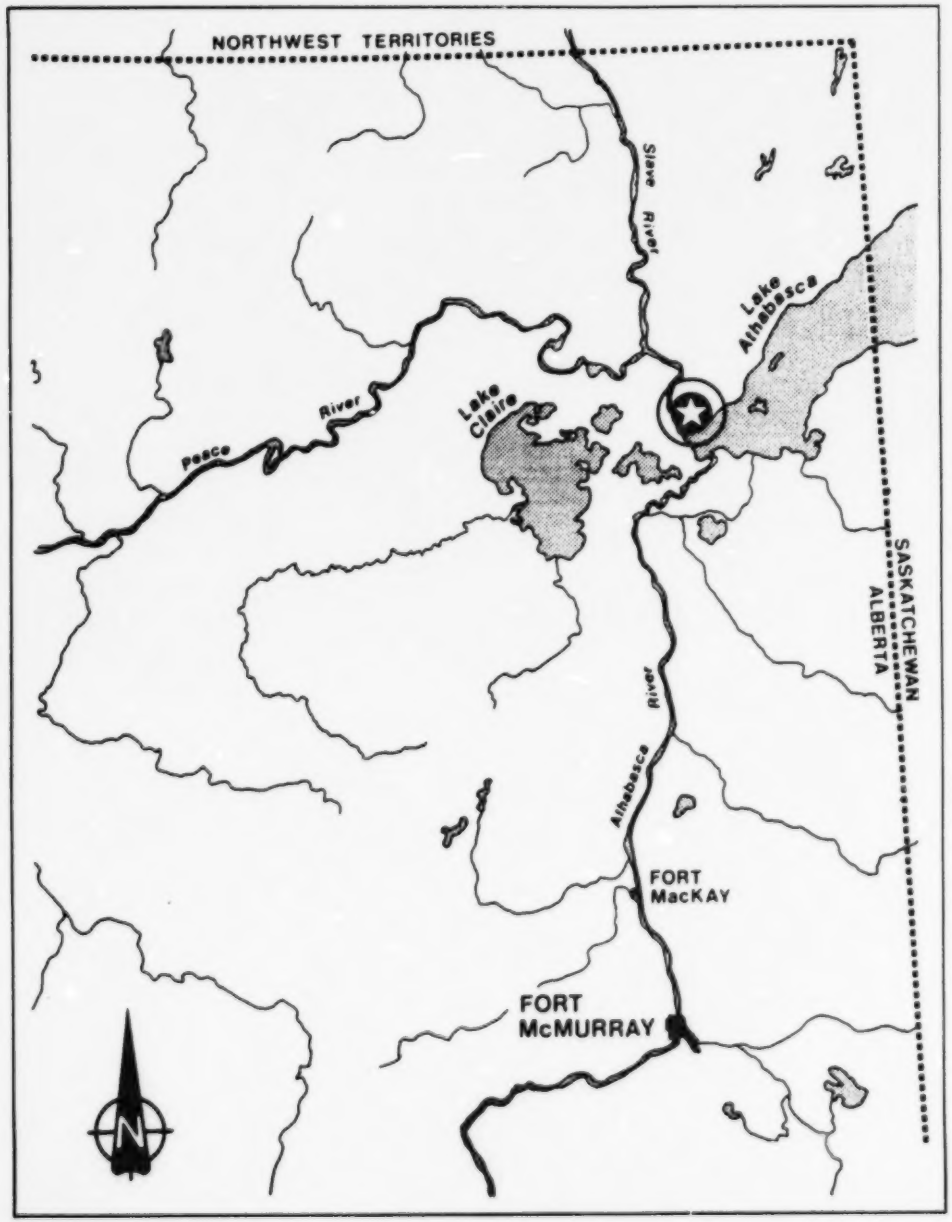


FIGURE 1

Location Plan Hamlet of Fort Chipewyan

★ Hamlet of Fort Chipewyan

Scale: 1 inch = 65 kilometers

INVENTORY AND ANALYSIS

EXISTING DEVELOPMENT AND VACANT LAND

The Study Map in the attached pocket illustrates the location of buildings and other developments as observed during an inventory of the Hamlet undertaken on April 22, 1986.

The majority of the development in Fort Chipewyan is concentrated in the south central portion of the Hamlet. Settlement historically established in this location in 1978 when the North West Company constructed a fur trading post, taking advantage of the relatively flat nature of the site.

Today this area is the focus of the community, providing commercial and institutional activities, as well as the majority of the residences in Fort Chipewyan. There are a significant number of vacant lots in this area, both in private ownership, and in the name of the Federal Government. This area is served by a municipal sewer and water system.

The area to the west of the main built up area, known as "Dog Head". This area is the site of the original Roman Catholic Mission and School. The Mission and church remain operating today, while the school, was recently closed in favour of the newly constructed Northlands School. The Dog Head area also has a number of residences scattered throughout, including some native residences on land owned by Indian and Northern Affairs. Only the Mission is connected to the Hamlet water system, by a two inch private water line.

Further development is limited by rock outcrops and low lying areas which leave few areas of suitable size to be economically developable. Another constraint to future development in this area is that some of the better lands for development are under private ownership.

In the northeastern area of the Hamlet the Department of Indian and Northern Affairs have established a 120 lot subdivision known as the DIANA subdivision. Approximately 55 lots were vacant when the field survey for this study was undertaken.

PHYSICAL CONSTRAINTS

The Hamlet of Fort Chipewyan lies within the Canadian Shield, and is characterized by extensive granitic gneiss outcrops and patches of muskeg. This has had considerable influence on the development of Fort Chipewyan.

Areas of rock outcrop and close to surface bedrock are extremely difficult to develop. Excavations for basements and underground services require the rock to be blasted and removed at considerable expense.,

Similarly, development in areas of muskeg is generally unfeasible due to the high cost of excavation and fill required to establish a sound base for the development of buildings and installation of services. Muskeg and poorly drained areas are located to the north and west of the Hamlet, with pockets of muskeg to the east as well.

The Study Map in the attached pocket illustrates these constraints and how the community has developed around them.

ADMINISTRATIVE CONSTRAINTS

This section deals with administrative and ownership constraints which may impact future residential development in Fort Chipewyan.

Native Land claims are a major land use constraint for future development in Fort Chipewyan. As part of long standing land claims by the Cree Indians, a tentative agreement between Federal Government representatives and the Cree Indian Band have allocated lands in the Dog Head area which are to be turned over to the Indian Band. Although these land claims are not yet finalized, it appears that they will be in the near future. These lands would then not be available for residential use by the general populus in Fort Chipewyan.

In addition to the native land claims, the Department of Indian and Northern Affairs has ownership or administrative control of a number of other areas of the Hamlet, the largest of which is the DIANA subdivision, a 106 acre parcel in the northeast portion of the community. Approximately half of the area has been surveyed into lots and serviced. The balance may be suitable for additional lots, although much of the area is low lying and may require drainage and fill. Engineering studies are necessary to determine the capability for future development.

Immediately west of the DIANA subdivision, Keyano College has secured a lease for a future permanent facility. Although the likelihood of the construction of a new college facility in the future is not know, the lease held by Keyano may preclude other land uses in this site.

Land ownership is a constraint in the Dog Head area of Fort Chipewyan. The areas which appear to have good physical development characteristics are largely under private ownership. This includes the Roman Catholic Mission, and Bishop Piche School, (presently not in use).

DEVELOPMENT OPPORTUNITIES

The development constraints indicate that there are three general areas which may be suitable for residential development. These areas are outlined on the map in the attached pocket.

DEVELOPMENT AREA "A"

This area is the area immediately north of the new Northlands School. The site was the subject of a subdivision application in 1981 by Alberta Housing Corporation, which proposed 45 single family lots. Although site evaluation indicated some potential problems related to rock outcrop on the site and an area of fairly high water table, the overall developability of the site is high. If the area immediately to the east could be used in conjunction with this site, additional lots and an improved subdivision design could be accommodated. This would be contingent on suitable arrangements being made with Keyano College and an alternate site for the baseball diamond being found.

In addition to a high potential for development in this area, Development Area 'A' is immediately adjacent to existing development and would be a logical extension of the community.

DEVELOPMENT AREA "B"

Development area "B" is located east of the built up area of the Hamlet, and southeast of McDermot Avenue. This area was proposed for unserviced residential lots in a special feasability study undertaken for the Improvement District in 1983.

At the present time there is an existing private roadway and construction company located in this area. The surface features and vegetation indicate good development characteristics for much of Development Area 'B'. However, bedrock outcrops, and areas of poor drainage may be encountered throughout the area. In order to accurately evaluate the development potential of the area and assess the economics of residential development here, detailed soil information will be required.

DEVELOPMENT AREA "C"

Development area "C" is immediately northeast of the "DIANA" subdivision, on the west side of McDermot Avenue. The site is generally flat, rising slightly to the northwest (away from McDermot Avenue). A portion of the area to the south exhibits signs of poor drainage. There is also evidence of bedrock at or near the surface to the northwest. A more extensive site investigation is required to adequately assess the developability of the area.

DEVELOPMENT OPPORTUNITIES WITHIN EXISTING DEVELOPED AREAS

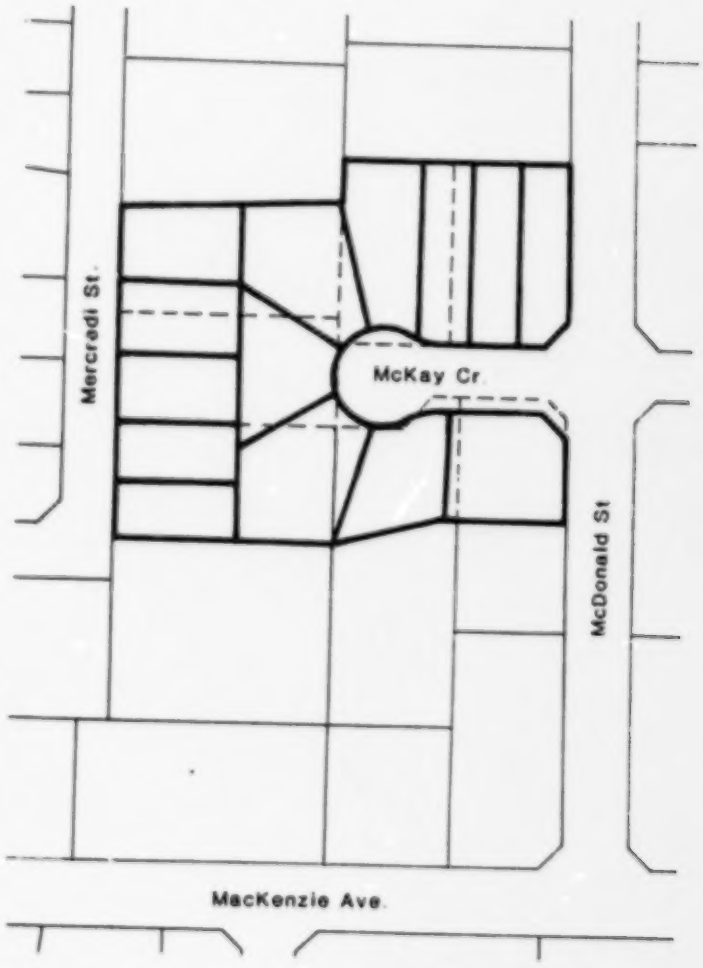
In addition to the potential for new residential lots in expansion areas, the Hamlet of Fort Chipewyan has considerable potential to provide residential lots through resubdividing existing lots.

At the present time much of the developed area is subdivided into lots which exceed the minimum residential parcel size as prescribed in the Improvement District 18 Land Use Order. When the present structure of Fort Chipewyan was laid out in 1967, it was planned on the basis of a municipal water supply system and individual septic systems, which required a larger lot size. However, with the construction of the municipal sewer and water system the minimum parcel size was reduced. The Land Use Order now requires that residential lots be a minimum of 6,027 square feet.

The majority of lots in the Hamlet are in excess of 10,000 square feet, with many in the 20,000 square foot range. As such, many of these parcels could resubdivided to create more residential lots in the community. This would be particularly convenient in those areas which are presently vacant. (see study map in attached pocket).

The following are some examples of how resubdivision or replotting may be employed in Fort Chipewyan to provide additional residential lots. It is outlined here in order to provide examples and ideas on how the concept might be implemented by landowners which could derive substantial benefit. However, any resubdivision or replotting should be initiated by individual landowners.

Examples Of Existing Parcels Re-Subdivided
To Create Additional Lots



Example Of Replotting Existing Parcels
To Create Additional Lots

FIGURE 2

RECOMMENDATIONS

1. **DEVELOPMENT AREA 'A' AS DEFINED ON THE STUDY MAP ATTACHED TO THIS REPORT SHOULD BE IDENTIFIED AS THE NEXT AREA FOR RESIDENTIAL EXPANSION IN FORT CHIPEWYAN.**

2. **A SUBDIVISION PLAN SHOULD BE PREPARED TO ESTABLISH A PATTERN FOR RESIDENTIAL DEVELOPMENT IN THIS AREA.** This should include a review of the Keyano College lease to determine whether the College is planning to utilize their lease, or whether it could be better used by the community for residential purposes.

3. **A REVIEW OF ALTERNATIVE METHODS FOR THE DEVELOPMENT SHOULD BE UNDERTAKEN** to determine the most efficient and effective method of the subdivision of Development Area 'A'. This may include consideration of whether Alberta Mortgage and Housing Corporation, Alberta Municipal Affairs or a private developer could most effectively undertake the subdivision, servicing and sale of lots.

4. **DEVELOPMENT AREA 'B' AS OUTLINED ON THE STUDY MAP ATTACHED TO THIS REPORT SHOULD BE RESERVED FOR FUTURE RESIDENTIAL DEVELOPMENT.** This area is the next logical area for future development in Fort Chipewyan given the existing development and servicing constraints. The Improvement District should not permit development in this area which would jeopardize future expansion in this portion of the Hamlet.

5. **AN ENGINEERING STUDY SHOULD BE UNDERTAKEN FOR DEVELOPMENT AREA 'B' TO EVALUATE SOIL CONDITIONS AND DETERMINE THE ECONOMIC FEASIBILITY OF SERVICED DEVELOPMENT IN THE AREA.**

6. **DEVELOPMENT AREA 'C' AS OUTLINED ON THE STUDY MAP ATTACHED SHOULD BE RESERVED FOR COMMUNITY DEVELOPMENT IN THE LONGER TERM.** Although specific site information for this area is lacking, the area appears to have some development potential. If engineering studies in Development Area 'B' indicate future development would not be feasible, Area 'C' should be evaluated.

7. **THE RESUBDIVISION OF EXISTING RESIDENTIAL LANDS IN FORT CHIPEWYAN SHOULD BE ENCOURAGED.** The inventory of the Hamlet identifies numerous vacant parcels which could be resubdivided into two or more lots. If landowners are made aware that resubdividing lots is possible, it is possible that additional residential lots, could be created at negligible cost.

REFERENCES

1. Community Plan: Fort Chipewyan,
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Small Community Engineering Services and
EDA Collaborative Inc.
June, 1983.

3. Geotechnical Evaluation: Proposed Residential
Subdivision Sites, Fort Chipewyan, Alberta,
EBA Engineering Consultants Ltd.
December, 1980.

4. Subdivision Proposal,
S.W. 17-112-7-W4M.
Alberta Housing Corporation
December, 1981.

5. Aerial Photography: AS 26585,
Alberta Energy and Natural Resources 1:10,000,
May 5, 1983.

6. Topographical Data; Aerial Surveys Section;
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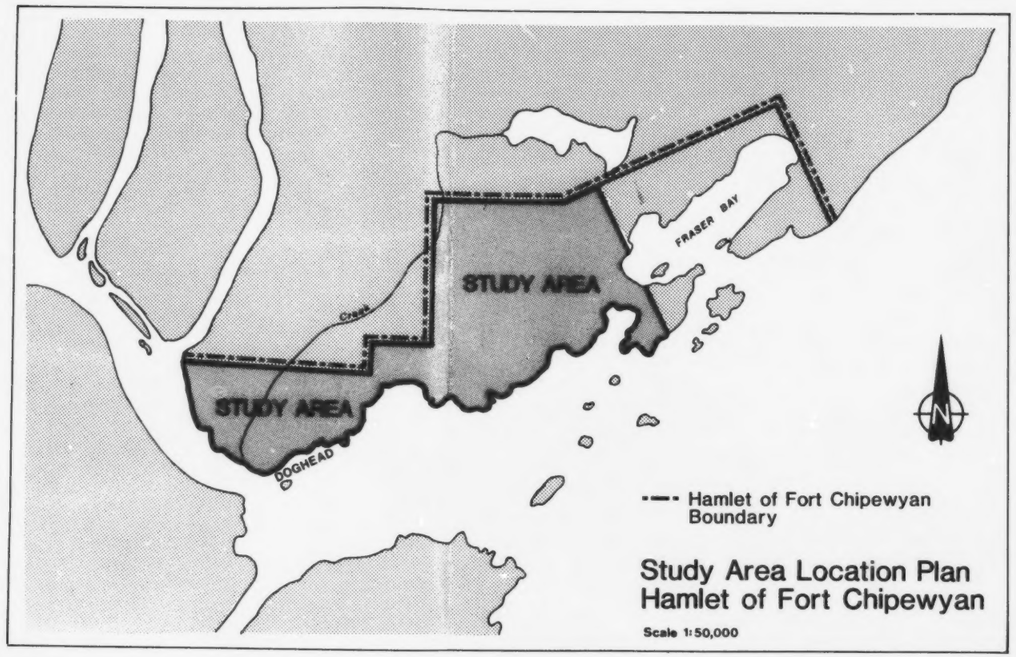
June 1984.



Study Area Location Plan
Hamlet of Fort Chipewyan

Scale 1:50,000

LEGEND

- Indian Related Land
- Development Areas
- Vacant Lots
- Potential Wet Areas
- Rock Outcrop Areas

NOTE: Based On Aerial Photography, Topographic
Conducted April, 1986.
Information regarding Native Land Claims w
and may be subject to change.

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a Location Plan
Fort Chipewyan

LEGEND

- Indian Related Land Areas
- Development Areas
- Vacant Lots
- Potential Wet Areas
- Rock Outcrop Areas

NOTE: Based On Aerial Photography, Topographic Maps and Field Survey Conducted April, 1986.
Information regarding Native Land Claims was Current to May, 1986 and may be subject to change.

The Creek

730
740
840
820
710
720
770
760

Lagoon
Lagoon

INDIAN AFFAIRS LAND

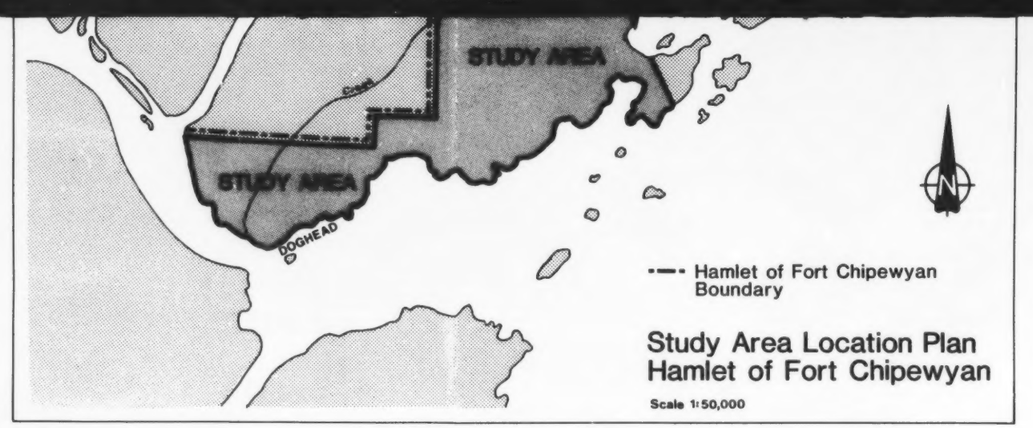
DIANA Subdivision

Field Survey

to May, 1986

Rock Outcrop Areas

NOTE: Based On Aerial Photography, Topographic Ma
Conducted April, 1986.
Information regarding Native Land Claims was
and may be subject to change.



Study Area Location Plan
Hamlet of Fort Chipewyan

Scale 1:50,000

Rock Outcrop Areas

NOTE: Based On Aerial Photography, Topographic Maps and Field Survey Conducted April, 1986.
Information regarding Native Land Claims was Current to May, 1986 and may be subject to change.

ort Chipewyan

Location Plan
ort Chipewyan

The Creek

INDIAN AFFAIRS LAND

DIANA Subdivision

Development Area B

Lagoon

Reservoir

Reservoir

Reservoir

Northlands School

CBC

Hall

Cemetery

Fire Hall

Playground

Roman Catholic Mission

MacKenzie Ave.

McDermont Ave.

McDonald St.

Bryant Ave.

Franklin Ave.

Cardinal Avenue

Vermilion

Bourke

Rose

Robert St.

Wagner St.

Campbell

Herron Ave.

McKay

Sharpe Drive

Playground

Alberta Power

MLL 77

Field Survey

to May, 1986

HAMLET BOUNDARY

INDIAN AFFAIRS LAND

DIANA Subdivision

McDermont Ave.

Northlands School

CBC

Hall

Cemetery

Reservoir

McDonald St.

Cardinal Avenue

Pequette St.

Playground

Stewart Drive

Vermilion

Fire Hall

McDermont Avenue

Fort Chipewyan

Proposed To Indian Affairs

Alberta Power

MLL 770078

Quarry/Landfill

R.L. 8

MTS 86000

DOGHEAD AREA

LAND CLAIMS AREA

Lagoon

Villebrun Ave.

Keyser St.

Rowland St.

Roman Catholic Mission

MacKenzie Ave.

Robert St.

Simpson St.

Lepine Ave.

Fleet St.

MacKenzie Avenue

Smith St.

Wylie Ave.

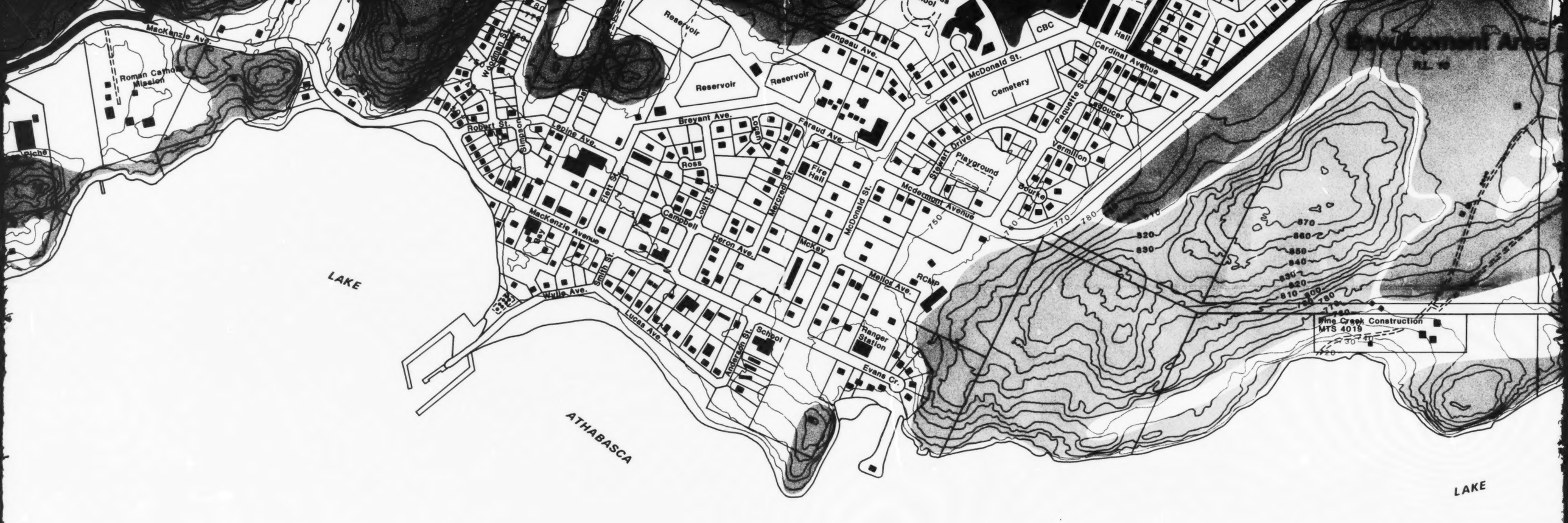
Lucas

LAKE ATHABASCA

LAKE ATHABASCA

HAMLET OF FORT CHIPEW

Residential Land Use Study



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10 Foot

Reservoir
Reservoir
Cemetery
CBC
Hall
McDonald St.
Cardinal Avenue
Paquette St.
Laurier
Vermilion
Bourke
Stewart Drive
Playground
Mcdermont Avenue
Fraud Ave.
Fire Hall
Mercredi St.
McDonald St.
McKay
Heron Ave.
Mellot Ave.
RCMP
Ranger Station
School
Anderson St.
Evans Cr.
Loram
Pengesau Ave.
Ave.
Mine Creek Construction
MTS 4019
R.L. 8
MTS 860009
ATHABASCA
LAKE
m100
0
100
200
300m
10 Foot Contour Intervals